

# Licence

## *Environmental Protection Act 1986, Part V*

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**Licensee:** Roy Hill Infrastructure Pty Ltd

**Licence:** L8608/2011/1

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**Registered office:** 28-42 Ventnor Ave  
WEST PERTH WA 6005

**ACN:** 130 249 633

**Premises address:** Rail Construction Camp 1  
Approximately 50 km south of Port Hedland within 671356.8E, 7698973.8N;  
671481.8E, 7698388.6N; 672315.1E, 7698462.7N; 672227.2E, 7698793.3N;  
672424.7E, 7698868N; 672349E, 7699178.6N; 617922.2E, 7699090N;  
671924.3E, 7699077.8N (MGA50).  
INDEE WA 6721 as depicted in Schedule 1

**Issue date:** Thursday, 5 July 2012

**Commencement date:** Monday, 9 July 2012

**Expiry date:** Saturday, 8 July 2017

**Prescribed premises category**  
Schedule 1 of the Environmental Protection Regulations 1987

Category number	Category description	Category production or design capacity	Approved premises production or design capacity
54	Sewage facility: premises: (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters.	100 cubic metres or more per day	175.7 cubic metres per day
89	Putrescible landfill site: premises on which waste (as determined by reference to the waste types set out in the document entitled "Landfill Waste Classification and Waste Definitions 1996" published by the CEO and as amended from time to time) is accepted for burial.	More than 20 but less than 5,000 tonnes per year	5,000 tonnes per annual period

### Conditions

Subject to this Licence and the conditions set out in the attached pages.

Date signed: 28 January 2016

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Steve Checker  
Manager Licensing (Waste Industries)  
Officer delegated under section 20  
of the *Environmental Protection Act 1986*

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## Introduction

This Introduction is not part of the Licence conditions.

### DER's industry licensing role

The Department of Environment Regulation (DER) is a Government Department for the State of Western Australia in the portfolio of the Minister of Environment. DER's purpose is to protect and conserve the State's environment on behalf of the people of Western Australia.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* for the licensing of prescribed premises. Through this process DER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitor and audit compliance with works approvals and licence conditions, take enforcement action as appropriate and develop and implement licensing and industry regulation policy.

### Licence requirements

This licence is issued under Part V of the Act. Conditions contained with the licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/Licensee the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link:

<http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html>

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply.

Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

### Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises. Operating without a licence is an offence under the Act.

### Ministerial Conditions

If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for the Environment. You are required to comply with any conditions imposed by the Minister.

### Premises Description and Licence Summary

Roy Hill Infrastructure Pty Ltd (RHI) has constructed an accommodation camp to support the construction of a railway line from their proposed Roy Hill Iron Ore Mine to their port operations in Port Hedland. The camp accommodates 300 people with the capacity for expansion to 500 people. The camp includes a wastewater treatment plant (WWTP) for treating wastewater, including water from the kitchen and ablution facilities, and landfill facility. It is expected that the camp will be in operation for approximately 3 years.

The WWTP has the capacity to treat 175.7 m<sup>3</sup>/day of sewage which is discharged to a dedicated irrigation field. The landfill accepts up to 5,000 tonnes per annum of inert and putrescible wastes generated from the camp.

The main emissions are discharges of treated wastewater for irrigation purposes and solid waste disposal from operation of the landfill.

This Licence is the result of an amendment sought by the Licensee requesting an amendment to increase the Category 89 Production and Design Capacity (P&DC) from 500 tonnes to 5,000 tonnes. RHI is in the process of decommissioning Rail Camp 1 (RC1) and needs to dispose of inert waste into the existing landfill. The inert waste will consist mostly of concrete. The current landfill P&DC is 500 tonnes per annual period but decommissioning activities will produce inert waste volumes that exceed this capacity. Therefore RHI have applied for a licence amendment to increase the landfill P&DC to 5,000 tonnes per annual period to cater for the expected increase in inert waste volumes buried at the landfill generated from the decommissioning of RC1 infrastructure.

The licenses and works approvals issued for the Premises since 2010:

Instrument Log		
Instrument	Issued	Description
W4783/2010/1	14/7/2011	New application
L8608/2011/1	5/7/2012	New application
L8608/2011/1	18/4/2013	Amendment to include category 89
L8608/2011/1	16/10/2014	Amendment to include discharge from the Reverse Osmosis Plant
L8608/2011/1	28/01/2016	Amendment to increase P&DC of the landfill



### **Severance**

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

### **END OF INTRODUCTION**

# Licence Conditions

## 1 General

### 1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 In the Licence, unless the contrary intention appears:

**'Act'** means the *Environmental Protection Act 1986*;

**'AHD'** means the Australian height datum;

**'Acceptance Criteria'** has the meaning defined in Landfill Waste Classification and Waste Definitions 1996 published by the CEO and as amended from time to time;

**'annual period'** means the period from 1 January until 31 December in that year;

**'AS/NZS 5667.1'** means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples*;

**'AS/NZS 5667.10'** means the Australian Standard AS/NZS 5667.10 *Water Quality – Sampling – Guidance on sampling of waste waters*;

**'AS/NZS 5667.11'** means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on sampling of groundwaters*;

**'averaging period'** means the time over which a limit is measured or a monitoring result is obtained;

**'baseline conditions'** means the condition of vegetation at the unimpacted, reference monitoring transects, R1PP – R1SP and I5PP – R2SP, or condition of the site prior to discharge occurring;

**'CEO'** means Chief Executive Officer of the Department of Environment Regulation;

**'CEO'** for the purpose of correspondence and advice means:

Chief Executive Officer  
Department Administering Environmental Protection Act 1986  
Locked Bag 33  
CLOISTERS SQUARE WA 6850  
Email: [info@der.wa.gov.au](mailto:info@der.wa.gov.au);

**'Clean Fill'** has the meaning defined in Landfill Waste Classification and Waste Definitions 1996 published by the CEO and as amended from time to time;

**'freeboard'** means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point;

**'Inert Waste Type 1'** has the meaning defined in Landfill Definitions;

**'Inert Waste Type 2'** has the meaning defined in Landfill Definitions;

**'Landfill Definitions'** means the document titled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer of the Department of Environment as amended from time to time;

**'Licence'** means this Licence numbered L8608/2011/1 and issued under the Act;

**'Licensee'** means the person or organisation named as Licensee on page 1 of the Licence;

**'NATA'** means the National Association of Testing Authorities, Australia;

**'NATA accredited'** means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

**'practicable'** is as defined in the Act;

**'Premises'** means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of this Licence;

**'Putrescible Waste'** has the meaning defined in the Landfill Definitions;

**'quarterly period'** means the 4 inclusive periods from 1 January to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October to 31 December in that year;

**'restoration'** means the completion of the engineering of a landfill cell and may include capping and/or final cover;

**'Schedule 1'** means Schedule 1 of this Licence unless otherwise stated;

**'Schedule 2'** means Schedule 2 of this Licence unless otherwise stated;

**'sewage'** means waste containing faecal matter or urine and conveyed in sewers;

**'spot sample'** means a discrete sample representative at the time and place at which the sample is taken; and

**'usual working day'** means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia.

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this licence.

1.1.4 Any reference to a guideline or code of practice in the Licence means the version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this licence.

## **1.2 General Conditions**

1.2.1 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.

- 1.2.2 The Licensee shall manage stormwater on the site to ensure that:
- (a) it does not pond on the surface of the landfill;
  - (b) it is diverted away from those portions of the premises which are or have been used for waste deposition; and
  - (c) stormwater that is or has been in contact with waste is diverted into a sump on the site or otherwise retained on the site.

### 1.3 Premises operations

- 1.3.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit in this section.

- 1.3.2 The Licensee shall only accept waste on to the Premises if:
- (a) it is of a type listed in Table 1.3.1;
  - (b) the quantity accepted is below any quantity limit listed in Table 1.3.1; and
  - (c) it meets any specification listed in Table 1.3.1.

Table 1.3.1: Waste acceptance			
Waste type	Waste Code	Quantity limit	Specification <sup>1</sup>
Inert Waste Type 1	N/A	Combined total of up to 4,900 tonnes per annual period	None specified
Inert Waste Type 2	T140		None specified
Clean Fill	N/A		None specified
Putrescible Waste	N/A	100 tonnes per annual period	None specified
Sewage	N/A	175.7 m <sup>3</sup> /day	Accepted through sewer inflow(s) only
Vegetable and food processing liquid wastes	K200		
Waste from grease traps	K110		

Note 1: Additional requirements for the acceptance of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

- 1.3.3 The Licensee shall ensure that wastes accepted at the Premises are only subjected to the process(es) set out in Table 1.3.2 and in accordance with any process limits described in that Table.

<b>Table 1.3.2: Waste processing</b>		
<b>Waste type</b>	<b>Process(es)</b>	<b>Process limits<sup>1</sup></b>
Inert Waste Type 1	Receipt, handling and disposal of waste by landfilling	<u>All waste types</u> Disposal of waste by landfilling shall only take place within the landfill area shown on the Premises Map in Schedule 1.
Putrescible Waste		
Clean Fill		The separation distance between the base of the landfill and the highest groundwater level shall not be less than 2m.
Inert Waste Type 2		Less than 100 units of tyres to be stored at the premises.
Sewage	Biological, physical and chemical treatment.	175.7 m <sup>3</sup> /day
Vegetable and food processing liquid wastes		
Waste from grease traps		

Note 1: Additional requirements for the acceptance of controlled waste are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

- 1.3.3 The Licensee shall manage the landfilling activities to ensure:
- (a) the size of the tipping face is kept to a minimum and not larger than 30m in length;
  - (b) waste is levelled and compacted as soon as practicable after it is discharged;
  - (c) waste is placed and compacted to ensure all faces are stable and capable of retaining restoration material; and
  - (d) restoration of a cell or phase takes place within 6 months after disposal in that cell or phase has been completed.



- 1.3.4 The Licensee shall ensure that cover is applied and maintained on landfilled wastes in accordance with Table 1.3.3 and that sufficient stockpiles of cover are maintained on site at all times.

Table 1.3.3: Cover requirements <sup>1</sup>			
Waste Type	Material	Depth	Timescales
Inert Waste Type 1	Inert and incombustible material	Sufficient to ensure the waste is completely covered and that no waste is exposed	Weekly or as soon as practicable after deposit and prior to compaction
Putrescible Waste			
Inert Waste Type 2 (Tyres only)	Soil	500mm	As soon as practical following the achievement of final waste levels in the area(s) in which tyres are deposited.

Note 1: Additional requirements for the covering of tyres are set out in Part 6 of the *Environmental Protection Regulations 1987*.

- 1.3.5 The Licensee shall:
- (a) erect and maintain suitable fencing around the irrigation area and landfill facility that acts as an effective barrier to unauthorised persons, cattle, horses and other stock; and
  - (b) undertake regular inspections of all security measures and repair damage as soon as practicable.
- 1.3.6 The Licensee shall ensure that wind-blown waste is contained within the landfill area and that wind-blown waste is returned to the tipping area on at least a monthly basis.
- 1.3.7 The Licensee shall ensure that the irrigation of treated wastewater meets the following:
- (a) no irrigation generated run-off, spray drift or discharge occurs beyond the boundary of the irrigation area;
  - (b) wastewater is evenly distributed over the irrigation area;
  - (c) soil erosion is prevented from occurring; and
  - (d) a healthy vegetation cover is maintained over the wastewater irrigation areas.
- 1.3.8 The Licensee shall ensure that, when not discharged to the irrigation field or used for dust suppression, wastewater is discharged into a turkey's nest or pond provided with the infrastructure detailed in Table 1.3.4.

Table 1.3.4: Containment infrastructure		
Containment cell or dam and location on Premises map	Material	Infrastructure requirements
Turkey's Nest	Wastewater from the Wastewater Treatment Plant and/or Reverse Osmosis Plant Decant Water	Lined with HDPE to achieve a permeability of at least $<10^{-9}$ m/s or equivalent and with a freeboard of at least 600mm
Contingency Pond		Lined with HDPE to achieve a permeability of at least $<10^{-9}$ m/s or equivalent and with a freeboard of at least 1,000mm

## 2 Emissions

### 2.1 Emissions to land

- 2.1.1 The Licensee is permitted, subject to conditions in the licence, to emit waste to land through the emissions points listed in Table 2.1.1 and depicted in the map in Schedule 1.

**Table 2.1.1: Emission points to land**

Emission point reference (and location on Map of emission points)	Description	Source
L1	Discharge to on-site irrigation area	Treated wastewater combined with RO rejects

## 3 Monitoring

### 3.1 General monitoring

- 3.1.1 The licensee shall ensure that:
- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1 unless indicated otherwise in the relevant table;
  - (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
  - (c) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
  - (d) all samples are submitted to a laboratory with current NATA accreditation for the parameters to be measured unless indicated otherwise in the relevant table.
- 3.1.2 The Licensee shall ensure that quarterly monitoring is undertaken at least 45 days apart.
- 3.1.3 The Licensee shall ensure all monitoring equipment used on the Premises is calibrated in accordance with the manufacturer's specifications, the requirements of the Licence and any relevant Australian standard.
- 3.1.4 The Licensee shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

### 3.2 Emissions to land

3.2.1 The Licensee shall undertake the monitoring in Table 3.2.1 according to the specifications in that table.

Table 3.2.1: Monitoring of emissions to land				
Emission point reference	Parameter	Units	Reference period	Frequency
L1 (Prior to discharge to the irrigation area)	Cumulative Volume	m <sup>3</sup>	Monthly	Continuous
	Biochemical Oxygen Demand	mg/L	Spot sample	Quarterly
	Total Suspended Solids	mg/L		
	pH <sup>1</sup>			
	Total Nitrogen	mg/L		
	Total Phosphorus	mg/L		
	E.coli	CFU/100 mL		
	Total Dissolved Solids	mg/L		

Note 1: In-field non-NATA accredited analysis permitted.

### 3.3 Monitoring of inputs and outputs

3.3.1. The Licensee shall undertake the monitoring specified in Table 3.3.1 according to the specifications in that table.

Table 3.3.1 Monitoring of inputs and outputs				
Input/Output	Parameter	Units	Averaging Period	Frequency
Waste Inputs	Inert Waste Type 1, Inert Waste Type 2, Putrescible Waste and Clean Fill	tonnes or (where no weighbridge is present) m <sup>3</sup>	N/A	Each load arriving at the landfill



## 4 Information

### 4.1 Records

- 4.1.1 All information and records required by this licence shall:
- (a) be legible;
  - (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
  - (c) except for records listed in 4.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
  - (d) for those following records, be retained until the expiry of the Licence or any subsequent licence:
    - (i) off-site environmental effects; or
    - (ii) matters which affect condition of the land or waters.
- 4.1.2 The Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.
- 4.1.3 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.
- 4.1.4 The Licensee shall:
- (a) implement and maintain a system which ensures that a record is made of:
    - (i) the waste types and quantities accepted at the site;
    - (ii) the waste types and quantities disposed of at the site; and
    - (iii) any documentary evidence to demonstrate compliance with the Class II landfill acceptance criteria.

## 4.2 Reporting

4.2.2 The Licensee shall submit to the CEO an Annual Environmental Report within 90 calendar days after the end of the annual period. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.

Table 4.2.1: Annual Environmental Report		
Condition or Table (if relevant)	Parameter	Format or Form <sup>1</sup>
-	Summary of any failure or malfunction of any pollution control equipment or any incidents that have occurred during the annual period and any action taken	None specified
Table 3.2.1	Cumulative Volume	None specified
Table 3.2.1	Biochemical Oxygen Demand, Total Suspended Solids, pH, Total Nitrogen, Total Phosphorus, <i>E.coli</i> , Total Dissolved Solids	WR1
4.1.2	Compliance	Annual Audit Compliance Report (AACR)
4.1.3	Complaints summary	None specified
4.1.4	Records of waste types and quantities received at the site and disposed of at the site.	None specified

Note 1: Forms are in Schedule 2

4.2.3 The Licensee shall ensure that the Annual Environmental Report also contains an assessment of the information contained within the report against previous monitoring results.

## 4.3 Notification

4.3.2 The Licensee shall ensure that the parameters listed in Table 4.3.1 are notified to the CEO and in accordance with the notification requirements of the table.

Table 4.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement <sup>1</sup>	Format or form <sup>2</sup>
1.3.2	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day.  Part B: As soon as practicable	N1

Note 1: Notification requirement in the Licence shall not negate the requirement to comply with s72 of the Act.

Note 2: Forms are in Schedule 2



## Schedule 1: Maps

### Premises Map

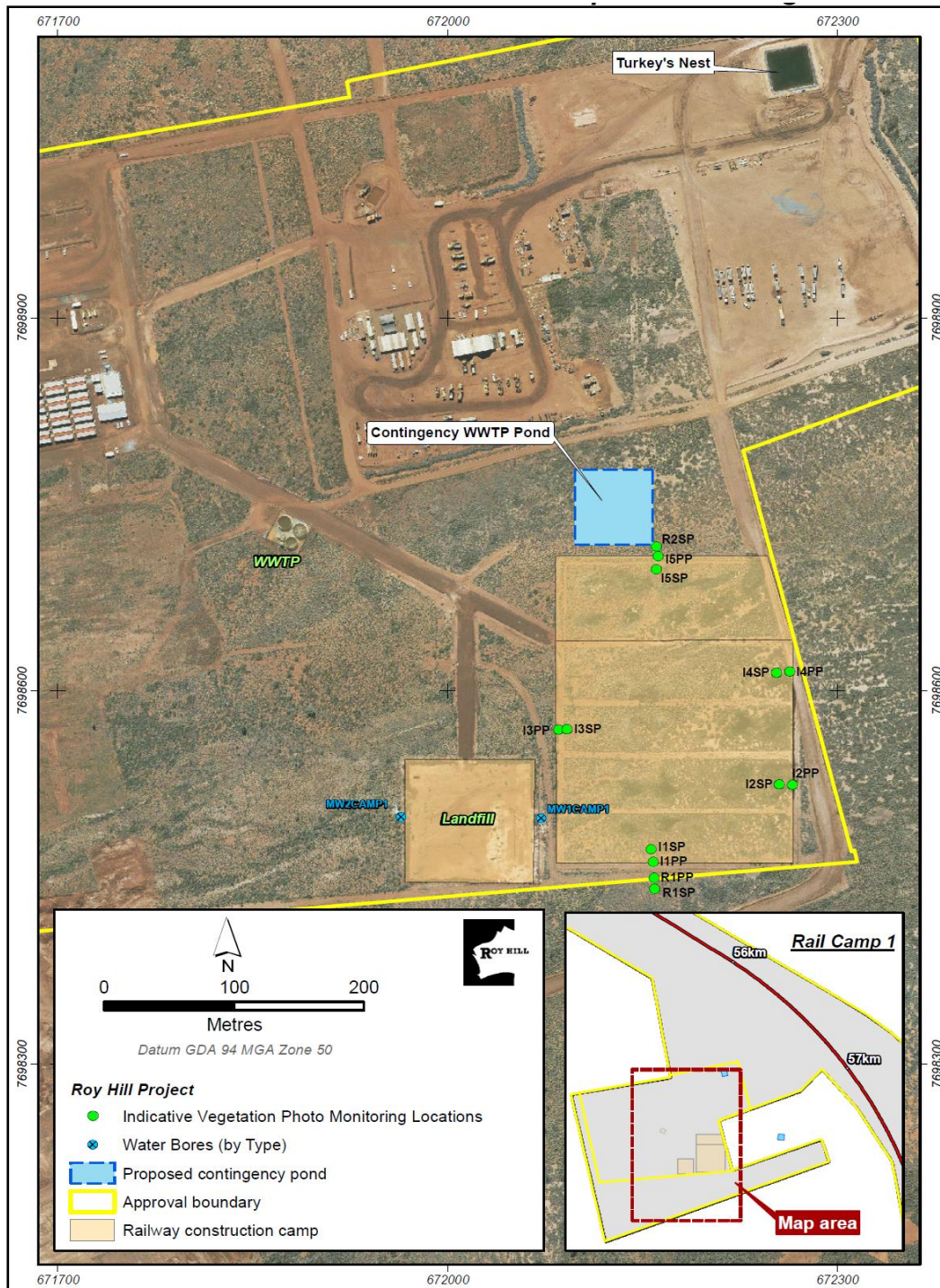
The Premises is shown in the map below. The yellow line depicts the Premises boundary. The area in which the disposal of waste by landfilling may take place is also shown in the map below.





## Map of containment area

The locations of the containment areas defined in Table 1.3.4 are shown below.





## Schedule 2: Reporting & Notification Forms

These forms are provided for the proponent to report monitoring and other data required by this licence. They can be requested in an electronic format.

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Licence:	L8608/2011/1	Licensee:	Roy Hill Infrastructure Pty Ltd
Form:	AACR	Period:	
Name:	Annual Audit Compliance Report		

### Annual Audit Compliance Report

#### Section A: Statement of compliance with licence conditions

Were all conditions of licence complied with within the annual period?		
Yes	<input type="checkbox"/>	Initial Sections A & B, then proceed to Section C
No	<input type="checkbox"/>	Initial Section A, then proceed to Section B

Each page must be initialled by the person(s) who signs Section C of this annual audit compliance report (AACR).

Initial:





**Section B: Details of non-compliance with licence condition**

a) Licence condition not complied with?	
b) Date(s) and time(s) the non compliance occurred, if applicable?	
c) Was this non compliance reported to DER?	
<input type="checkbox"/> Yes, and  <input type="checkbox"/> Reported to DER verbally      Date  <input type="checkbox"/> Reported to DER in writing      Date	<input type="checkbox"/> No
d) Has DER taken, or finalised any action in relation to the non compliance?	
e) Summary of particulars of non compliance, and what was the environmental impact?	
f) If relevant, the precise location where the non compliance occurred (attach map or diagram)	
g) Cause of non compliance	
h) Action taken or that will be taken to mitigate any adverse effects of the non compliance	
i) Action taken or that will be taken to prevent recurrence of the non compliance	

Please use a separate page for each licence condition that was not complied with. Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:



### Section C: Signature and certification

This AACR must only be signed by a person(s) with legal authority to sign it as defined below. Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The AACR must be signed and certified:
an individual	<input type="checkbox"/>	by the individual licence holder, or
	<input type="checkbox"/>	by a person approved in writing by the Chief Executive Officer (CEO) of DER to sign on the Licensee's behalf.
a corporation	<input type="checkbox"/>	by affixing the common seal of the Licensee in accordance with the Corporations Act 2001; or
	<input type="checkbox"/>	by two directors of the Licensee; or
	<input type="checkbox"/>	by a director and a company secretary of the Licensee, or
	<input type="checkbox"/>	if the Licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or
	<input type="checkbox"/>	by the principal executive officer of the Licensee; or
	<input type="checkbox"/>	by a person with authority to sign on the Licensee's behalf who is approved in writing by the CEO of DER.
A public authority (other than a local government)	<input type="checkbox"/>	by the principal executive officer of the Licensee; or
	<input type="checkbox"/>	by a person with authority to sign on the Licensee's behalf who is approved in writing by the CEO of DER.
a local government	<input type="checkbox"/>	by the CEO of the Licensee; or
	<input type="checkbox"/>	by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this AACR is correct and not false or misleading in a material particular.

Signature:

Name: (printed)

Position:

Date:

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Signature:

Name: (printed)

Position:

Date:

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Seal (if signing under seal)



Licence: L8608/2011/1  
Form: N1

Licensee: Roy Hill Infrastructure Pty Ltd  
Date of breach:

### Notification of detection of the breach of a limit

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

## Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	



## Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any previous N1 notification for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of Roy Hill Infrastructure Pty Ltd	
Date	



Licence: L8608/2011/1  
Form: WR1  
Name: Monitoring of point source emissions to land

Licensee: Roy Hill Infrastructure Pty Ltd  
Period:

Form WR1: Monitoring of point source emissions to land					
Emission point	Parameter	Result	Averaging Period	Method	Sample date & Times
L1	Biochemical Oxygen Demand		Spot Sample		
	Total Suspended Solids				
	pH				
	Total Nitrogen				
	Phosphorus				
	<i>E.coli</i>				
	Total Dissolved Solids				

Signed on behalf of Roy Hill Infrastructure Pty Ltd: ..... Date: .....



# Decision Document

## *Environmental Protection Act 1986, Part V*

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**Proponent:** Roy Hill Infrastructure Pty Ltd

**Licence:** L8608/2011/1

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**Registered office:** 28-42 Ventnor Ave  
WEST PERTH WA 6005

**ACN:** 130 249 633

**Premises address:** Rail Construction Camp 1  
Approximately 50 km south of Port Hedland within 671356.8E, 7698973.8N;  
671481.8E, 7698388.6N; 672315.1E, 7698462.7N; 672227.2E, 7698793.3N;  
672424.7E, 7698868N; 672349E, 7699178.6N; 617922.2E, 7699090N;  
671924.3E, 7699077.8N (MGA50).  
INDEE WA 6721

**Issue date:** Thursday, 5 July 2012

**Commencement date:** Monday, 9 July 2012

**Expiry date:** Saturday, 8 July 2017

### Decision

Based on the assessment detailed in this document, the Department of Environment Regulation (DER), has decided to issue an amended licence. DER considers that in reaching this decision, it has taken into account all relevant considerations.

Decision Document prepared by: Damian Thomas  
Licensing Officer

Decision Document authorised by: Stephen Checker  
Manager Licensing



## Contents

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## 1 Purpose of this Document

This decision document explains how the licence amendment application has been assessed and determined the licence amendment, and provides a record of the decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to the assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.



## 2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/> New Licence <input type="checkbox"/> Licence amendment <input checked="" type="checkbox"/> Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	54	175.7m <sup>3</sup> /day
	89	5,000 tonnes per annual period
Application verified Application fee paid	Date: N/A Date: N/A	
Works Approval has been complied with Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome	N/A.	
Is the proposal a Major Resource Project?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input checked="" type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 824, 827 and 847 EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i> )?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, include details here, eg Site is subject to SO <sub>2</sub> requirements of Kwinana EPP.		





### 3 Executive summary of proposal

Roy Hill Infrastructure Pty Ltd (RHI) has constructed an accommodation camp to support the construction of a railway line from their proposed Roy Hill Iron Ore Mine to their port operations in Port Hedland. The camp accommodates 300 people with the capacity for expansion to 500 people. The camp includes a wastewater treatment plant (WWTP) for treating wastewater, including water from the kitchen and ablution facilities, and landfill facility. It is expected that the camp will be in operation for approximately 3 years.

The WWTP has the capacity to treat 175.7 m<sup>3</sup>/day of sewage which is discharged to a dedicated irrigation field. The landfill accepts up to 5 000 tonnes per annual period of inert and putrescible wastes generated from the camp.

The main emissions are discharges of treated wastewater for irrigation purposes and solid waste disposal from operation of the landfill.

This Licence is the result of an amendment sought by the Licensee requesting an amendment to increase the Category 89 Production and Design Capacity (P&DC) from 500 tonnes to 5,000 tonnes. RHI is in the process of decommissioning Rail Camp 1 (RC1) and needs to dispose of inert waste into the existing landfill. The inert waste will consist mostly of concrete. The current landfill P&DC is 500 tonnes per annum but decommissioning activities will produce inert waste volumes that exceed this capacity. Therefore RHI have applied for a licence amendment to increase the landfill P&DC to 5,000 tonnes per annual period to cater for the expected increase in inert waste volumes buried at the landfill generated from the decommissioning of RC1 infrastructure.

As part of this amendment, the assessment has considered the acceptability or impacts of emissions and discharges from the Premises and consequently re-visited existing emission control levels as outlined in the Decision table below. During this amendment process changes to the conditions on the licence have also been made in line with global changes and licence template updates.



## 4 Decision table

All applications are assessed under the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987*, DER's *Policy Statement No.7 – Operational Risk Management* and the risk matrix attached to this decision document in Appendix A. Where other references have been used in making the decision they are detailed in the decision table.

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	1.2.1 1.2.2 1.2.3	<p>Previous conditions 1.2.1, 1.2.2 and 1.2.3 have been removed from the licence in line with DER new licensing process as they are considered redundant and adequately covered by existing legislation, or irrelevant in the context of this licence.</p> <p>Condition 1.2.2 is an existing condition and captures stormwater management for the landfill. No changes are required with the increase in P&amp;DC of the landfill.</p>	<p>Application supporting documentation</p> <p>L8608/2011/1</p>
Premises operation	1.3.1 1.3.2 1.3.3 1.3.4	<p>Condition 1.3.1 has been amended to remove targets as they are not enforceable and in line with DER new licensing process.</p> <p>Condition 1.3.2 has been amended to increase the P&amp;DC to 5,000 tonnes of inert waste per annual period. As ambient groundwater monitoring requirements have been removed (see below), putrescible waste volumes have been limited to 100 tonnes per annual period which is significantly higher than expected operational requirements.</p> <p>Previous condition 1.3.3 has been removed from the licence as waste disposed and buried at the landfill is generated on premises and therefore will comply with condition 1.3.2.</p> <p>Condition 1.3.3 has been amended for Inert Waste Type 2 as Schedule 6 of the <i>Environmental Protection Regulations 1987</i> regulates tyre disposal.</p> <p>Condition 1.3.4 has been amended to remove vertical height of waste as all waste is disposed into dedicated landfill trenches below ground level.</p>	<p>Application supporting documentation</p> <p>L8608/2011/1</p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Emissions to land including monitoring	L2.1.1	Condition 2.1.1 has been amended to remove reference to condition 3.8.2 as this condition has been removed from the licence; however the condition still allows treated effluent to be discharged to the on-site spray irrigation field.	Application supporting documentation  L8608/2011/1
	L2.5	<p><b>Operation</b></p> <p><u>Emission Description</u> <i>Emission:</i> Treated wastewater effluent discharged to a dedicated spray irrigation field. <i>Impact:</i> Contamination of surrounding land and surface water drainage systems. Potential impacts on ecology of surface water from the addition of nutrients and Total Suspended Solids. <i>Controls:</i> The proponent proposes to direct treated effluent to a dedicated spray irrigation field.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Rare <i>Risk Rating:</i> Low</p> <p><u>Regulatory Controls</u> No specific conditions to regulate emissions to land from the Premises are considered necessary. Previous licence condition 2.5.2 required parameters including Biochemical Oxygen Demand, Total Suspended Solids, Total Dissolved Solids, pH, Total Nitrogen, Total Phosphorus and <i>E.coli</i> is discharged at targeted levels listed in the respective table of the licence. However, in accordance with DER's new licensing process, the deletion of targets from the licence can occur if the environmental risk is low and not associated with a specific outcome requirement. Therefore licence condition 2.5.2 has been deleted from the licence. A review of the annual environmental report indicates only two parameters listed above were slightly above the respective discharge target criteria (a subsequent re-sample for both parameters was below target criteria). Emissions to land parameters discussed above do not warrant a limit be included in the licence.</p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Rare <i>Risk rating:</i> Low	
<b>Fugitive emissions</b>	L2.6.1 & 2.6.2	The previous licence contained conditions for dust management. Fugitive emissions of dust can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i> . In accordance with DER's licensing process, no specified conditions for fugitive emissions have been included on this licence.	<i>Environmental Protection Act 1986</i> .S49
<b>Odour</b>	L2.7.1	The previous licence contained conditions for odour management. Odour can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i> . In accordance with DER's licensing process, no specified conditions for fugitive emissions have been included on this licence.	<i>Environmental Protection Act 1986</i> .S49
<b>Ambient quality monitoring</b>	3.8.1 Table 3.8.1	<b>Operation</b> <u>Emission Description</u> <i>Emission:</i> Leachate generated from the decomposition of buried putrescible waste. <i>Impact:</i> Contamination of surrounding groundwater systems. Potential impacts on ecology of groundwater from the addition of nutrients, metals and heavy metals. <i>Controls:</i> The proponent proposes to undertake groundwater monitoring at the landfill.  <u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Rare <i>Risk Rating:</i> Low  <u>Regulatory Controls</u> No specific conditions to regulate ambient groundwater monitoring are considered necessary. Previous licence condition 3.8.1 required parameters listed in Table 3.8.1 be monitored quarterly. A review of the annual environmental report indicates waste	Application supporting documentation  L8608/2011/1



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
	L3.8.1 Table 3.8.2 L3.8.2	<p>has only been disposed to the landfill in September 2013 and the licence amendment application states that only 5.5 tonnes of waste has been disposed to landfill. This is a very low volume of waste and the leachate generated from this waste will be extremely low and will not pose a significant risk to the environment. Groundwater samples analysed post operations do not differ significantly from baseline data. The Proponent has advised DER that no further putrescible waste will be disposed to the landfill prior to decommissioning, and inert waste by its very nature, does not produce leachate.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Rare <i>Risk rating:</i> Low</p> <p><u>Emission Description</u> <i>Emission:</i> TDS associated with the discharge of RO rejects combined with treated effluent from the WWTP to the irrigation area. TDS of the discharge is estimated to be 4,300 mg/L. <i>Impact:</i> Impact to vegetation within the irrigation area associated with elevated TDS. <i>Controls:</i> Monthly vegetation monitoring will occur to detect if vegetation is being affected. If impact is identified over 3 consecutive monitoring periods, discharge of RO waste will cease and will be directed to either a high density polyethylene (HDPE) lined Contingency Pond or HDPE lined Turkey's nest. The type of wastewater that is directed to the Contingency Pond and Turkey's Nest can be controlled manually to control the TDS of wastewater. For example, if wastewater is to be used for dust suppression, both streams will be directed to the Turkey's Nest, in other cases, only the RO brine will be discharged to the ponds.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Rare <i>Risk Rating:</i> Low</p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<u>Regulatory Controls</u> No specific conditions to regulate ambient vegetation monitoring or Contingency discharges to Wastewater treatment pond or Turkeys nest are considered necessary. Target for discharges to the irrigation area is set through 2.5.2 and this condition has been removed from the licence (discussed above). Conditions requiring vegetation monitoring and implementing management action when vegetation is impacted have been removed from the licence. A review of the annual environmental report does not indicate vegetation has been impacted from operations.  <u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Rare <i>Risk Rating:</i> Low	
Information	L4.2 L4.3	There have been slight amendments to numbering within Table 4.2.1 and Table 4.3.1 and removal of information required within the table as these conditions have been removed from the licence or are in line with DER new licence processes.	Application supporting documentation  L8608/2011/1
Licence Duration	N/A	The licence has been issued for five years and there are no mitigating circumstances that warrant the licence duration to be reduced for this amendment. The licence expires in July 2017 but decommissioning will occur in early 2016 and result in the removal of the wastewater treatment plant and closure of the landfill.	N/A



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
24/12/2015	Proponent sent a copy of draft instrument	No comments	N/A



## 6. Risk Assessment

*Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management*

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High